

ABSTRACT OF THE DISCLOSURE

A cryogenic refrigerator includes a pressure feeding device, a refrigeration device, a high pressure passage, a low pressure passage, and at least one heat exchanger at the high pressure passage for refrigerating the refrigerant introduced at the high pressure passage by heat exchange, the heat exchanger including an active pressure drop type heat exchanger for declining pressure of the refrigerant at the high pressure passage before being introduced into the refrigeration device. The active pressure drop type heat exchanger declines the pressure of the refrigerant with a ratio equal to or greater than 5 percent out of 100 percent and refrigerates the refrigerant when a pressure difference between a pressure of the refrigerant before being introduced into the active pressure drop type heat exchanger and a pressure of the refrigerant before being introduced into the refrigeration device is defined as 100 percent.